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To assist home gardeners in propagating ornamental plants, horticulturists of USDA's Agricultural Research Service suggest an inexpensive method for rooting cuttings. This method is based on the practice widely used by nurserymen and other plant specialists of rooting cuttings under a plastic sheet. Instead of buying a sheet of plastic, the home gardener can use plastic freezer bags which he probably already has on the kitchen shelf. Here's a step-by-step method for constructing your own - - -

WINDOWSILL GREENHOUSE

Cuttings to be rooted (above) should be of the current season's growth, which is a light green rather than the brownish color of older growths. The completed greenhouse (below) should be placed in a northern window where it will get plenty of light but no direct sun. BN–25711; BN–25740

The first step in constructing your greenhouse in a plastic bag is to get some brown fibrous peat moss and screen it through a quarter-inch wire mesh to remove any twigs and large particles. Next, mix the peat with clean, salt-free sand, two parts of peat to one part of sand, by volume. After the two have been thoroughly mixed, add water and work it in completely. Use just enough water so that when you tightly squeeze a handfull of the mixture, only a few drops of water will squeeze out. BN–25707; BN–25709; BN–25706

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Put enough of the mixture (left) in a 2-quart plastic freezer bag to make about 4 inches of rooting "soil". Firm it gently with your hand. The bag you select must be free of holes so there will be no loss of moisture when closed. Now you are ready for the cuttings. BN–25703

Plastic freezer bags are suitable for propagating many popular ornamentals. Here are some recommended times for rooting:

- Conifers—such as yew and juniper—January and early February.
- Garden flowers—such as geraniums, lantana, and roses—late May through August.
- Flowering shrubs—such as forsythia, mock orange, and viburnum—mid-June to mid-August.
- Broadleaved evergreens—such as holly, azaleas, and camellias—mid-June to mid-August.
- Foliage plants—such as ivy, philodendron, and Chinese evergreen—any time of the year.

Cuttings of most plants will root in 8 to 10 weeks. After 8 weeks, open the bag and carefully remove a cutting. If a number of roots ½ to 1 inch long have formed, the cutting can be transplanted into a pot. Before transplanting, condition the cuttings to a less humid atmosphere by gradually opening the bag over a 5- to 7-day period. During this period, add enough water to keep the original moisture content of the rooting "soil".

Cuttings which have not rooted but are in good condition should be reset and inspected every 2 weeks for roots. Cuttings which have lost their leaves, turned brown, or decayed at the base should be thrown away.

From upper to lower right: Some cuttings, such as these from azaleas, are ready for rooting if they "snap like a fresh stringbean" when broken between your fingers (BN–25708). Never take cuttings from growth that is soft and rubbery. After making this test, use a sharp knife or pruning shear to take cuttings 4 to 6 inches long from the plant. Remove the leaves from the lower third to half of the cutting. Make a straight cut across the base with a sharp knife. Then, take a very thin sliver off the side of the cutting, about an inch long, ending at the base (BN–25713). This end should be dipped in a rooting hormone, available at garden supply stores. The hormone quickens the development of roots (BN–25697). Insert the cutting 2 to 3 inches deep in the sand-and-peat mixture in the plastic bag. Space cuttings in the bag so the leaves barely touch each other. If there is too much overlapping, the leaves wil rot. BN–25701

Sprinkle the cuttings lightly, just enough to wet the foilage. This is the last watering they will need until they are rooted. BN–25780

Finally, seal the top of the bag tightly with a rubber band. It is now ready to go on a northern windowsill, and should not be disturbed until the roots have had a chance to form. BN–25715

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